

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/000239

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C22C38/00 C23C2/40 C21D9/46

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C22C C23C C21D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 160 346 A (NIPPON STEEL CORP) 5 December 2001 (2001-12-05) cited in the application paragraphs '0006!, '0010!, '0045!, '0046!, '0050!; claims 1,13,14; example a; tables 1,2 -----	1-13

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- A\* document defining the general state of the art which is not considered to be of particular relevance
- E\* earlier document but published on or after the international filing date
- L\* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- O\* document referring to an oral disclosure, use, exhibition or other means
- P\* document published prior to the international filing date but later than the priority date claimed

- T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- &\* document member of the same patent family

Date of the actual completion of the international search

2 July 2004

Date of mailing of the international search report

09/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Rolle, S

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No  
PCT/JP2004/000239

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 1160346	A 05-12-2001	AU	744962 B2	07-03-2002
		AU	1584000 A	14-09-2000
		CA	2336373 A1	31-08-2000
		EP	1160346 A1	05-12-2001
		US	6517955 B1	11-02-2003
		CN	1310770 T	29-08-2001
		WO	0050658 A1	31-08-2000